

### REMARKS

After entry of this amendment, claims 1 – 20 are pending in the application. None of the claims have been amended or cancelled and no new claims have been added. Reconsideration of the application as amended is requested.

In the Office Action dated 04/12/2005, claims 1 and 12-14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Bolmstedt et al., U.S. Pat. No. 4,706,741. Applicants respectfully traverse the rejection. Bolmstedt et al. does not teach two plates differently shaped from one another. Bolmstedt et al. teaches a single plate configuration beginning at column 3, line 44 and shown in Figure 1. Nothing in the specification or drawings teaches or suggests that the plates 10, 10', 11, 11' are shaped differently from one another. In Figure 3, all the plates 10, 10', 11, 11' are identically structured. Plates 10 and 10' are arranged back (R<sub>2</sub>) to front (R'). Plates 10' and 11 are arranged back (surface opposite R') to back (unreferenced surface facing surface opposite R'). Plates 11 and 11' are arranged front to back. The rest of Bolmstedt et al. further teaches a single plate design. At column 1, line 56, Bolmstedt et al. states that it teaches "an embodiment of heat exchange plates[.]" At column 2, line 6, Bolmstedt et al. states "the corrugation pattern of the plates[.]" At column 2, line 52, Bolmstedt et al. states "the plate pattern[.]" At column 2, line 63, Bolmstedt et al. states "the plate[.]" It is therefore submitted that claim 1 patentably defines over Bolmstedt et al. and is suitable condition for allowance. Claims 12 and 13 also recite first and second differently shaped plates and are therefore also in suitable condition for allowance.

Applicants also traverse the rejection of claim 14. Bolmstedt et al. does not teach or suggest directing fluid streams between adjacent pairs of plates in opposite directions. Figure 3 shows a Heat Medium Passage H disposed transverse to a Falling Film Passage E. Therefore, Heat Medium would not flow opposite the Falling Film. It is therefore submitted that claim 14 individually patentably defines over Bolmstedt et al. in addition to the reasons set forth for claims 12 and 13 and is suitable condition for allowance.

Claims 2 – 10 and 15 – 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bolmstedt et al. in view of Nakamura et al., U.S. Pat. No. 6,241,011. As set forth above, Bolmstedt et al. does not teach or suggest first and second differently shaped plates and Nakamura et al. does not overcome this deficiency. Nakamura et al. discloses several different embodiments of plates; however, each plate configuration is stacked with other, like-plates and not stacked with different plate configurations. It is therefore submitted that claims 2 – 10 and 15 – 19 are in suitable for allowance by dependency from claims 1 and 12, respectively. Claim 20 also recites first and second differently shaped plates and is therefore also in suitable condition for allowance.

With respect to claims 3 and 4, it is respectfully submitted that neither Bolmstedt et al. nor Nakamura et al. teach or suggest a first return aperture adjacent a first center portion communicating with the first cavity, nor a first inlet aperture and a first outlet aperture disposed on an opposite side of the first center portion relative to the first return aperture. Bolmstedt et al. does not teach or suggest single aperture. Nakamura et al. teaches two apertures in each configuration of plate, not three apertures. It is therefore submitted that claims 3 and 4 individually patentably define over the references in addition to the reasons set forth for claim 1 and are suitable condition for allowance. If this rejection is maintained, it is requested that the Examiner particularly identify the first return aperture, the first inlet aperture and the first outlet aperture purportedly disclosed by the references to facilitate prosecution of the application.

The same traversal made with respect to claims 3 and 4 is made with respect to other claims that recite three apertures, such claims 6, 15 – 19 and 20. As set forth above, neither Bolmstedt et al. nor Nakamura et al. teach or suggest three apertures disposed relative to one another as recited in the claims. To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. M.P.E.P. § 2143.03.

With respect to claim 5, it is respectfully submitted that neither Bolmstedt et al. nor Nakamura et al. teach or suggest at least one mound projecting from the first center portion and surrounding one of the first inlet aperture and the first outlet aperture wherein the mounds of the two first plates of the first pair engage one another so that the one aperture surrounded by the mound is isolated from the first cavity. As set forth above, Bolmstedt et al. does not teach or suggest single aperture. Therefore, Bolmstedt et al. does not teach or suggest a mound surrounding an aperture. Neither of the holes taught by Nakamura et al. are surrounded by mounds that isolate the respective hole from the cavity defined between two plates; both holes are in fluid communication with the cavity defined between two plates. It is therefore submitted that claim 5 individually patentably defines over the references in addition to the reasons set forth for claims 1 – 4 and is suitable condition for allowance. If this rejection is maintained, it is requested that the Examiner particularly identify the mound purportedly disclosed by the references.

The same traversal made with respect to claim 5 is made with respect to other claims that recite a mound, such as claims 8, 15 – 19 and 20. In particular, neither Bolmstedt et al. nor Nakamura et al. teach or suggest a mound surrounding an aperture. To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. M.P.E.P. § 2143.03.

With respect to claim 7, it is respectfully submitted that neither Bolmstedt et al. nor Nakamura et al. teach or suggest return troughs disposed in each of the differently configured plates. Applicants' attorney has thoroughly reviewed both references and submits that neither

teaches of suggest return troughs as recited in claim 7. It is therefore submitted that claim 7 individually patentably defines over the references in addition to the reasons set forth for claims 1 – 4 and 6 and is suitable condition for allowance. If this rejection is maintained, it is requested that the Examiner particularly identify the return troughs purportedly disclosed by the references.

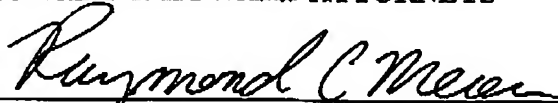
Claim 9 depends from claim 7 and recites additional troughs, inlet troughs, and it is respectfully submitted that neither Bolmstedt et al. nor Nakamura et al. teach or suggest inlet troughs disposed in each of the differently configured plates. As set forth above, Applicants' attorney has thoroughly reviewed both references and neither teaches of suggest a single trough as recited in the claims. It is therefore submitted that claim 9 individually patentably defines over the references in addition to the reasons set forth for claims 1 – 4 and 6 – 8 and is suitable condition for allowance. If this rejection is maintained, it is requested that the Examiner particularly identify the inlet troughs purportedly disclosed by the references.

Claim 10 depends from claim 9 and recites additional troughs, outlet troughs, and it is respectfully submitted that neither Bolmstedt et al. nor Nakamura et al. teach or suggest outlet troughs disposed in each of the differently configured plates.

All words in a claim must be considered in judging the patentability of that claim against the prior art. M.P.E.P. § 2143.03, citing *In re Wilson*, 424 F.2d 1382, 1385. It is important to facilitate prosecution that the Examiner particularly point out the structure being relied upon to reject the claims so that the Applicants have the opportunity to respond. In the most recent Office Action, the references relied upon for the rejection of claims 2 – 10 and 15 – 19 appear to be wholly deficient of structure similar to the structures recited in the claims. Applicants respectfully request the Examiner to particularly point out the structures relied upon or withdraw the rejection.

It is assumed that claim 11 has been allowed since the Examiner has not cited a basis for rejecting claim 11. Further and favorable consideration of the remaining claims of the application is requested. If the Examiner believes that prosecution of the application can be expedited by way of an Interview, the Examiner is invited to contact the Applicants' attorney at the telephone number listed below.

Respectfully submitted,  
HOWARD & HOWARD ATTORNEYS



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June 7, 2005

**CERTIFICATE OF FACSIMILE TRANSMISSION  
PURSUANT TO 37 C.F.R. §§ 1.6 AND 1.8**

I hereby certify that this **RESPONSE TO OFFICE ACTION** is faxed to Examiner Ali,  
Art Group 3744, at Facsimile Number (703) 872-9306, on **June 7, 2005**

  
Amy Downey

Attorney Reference No: DP-310499  
Application Serial No.: 10/752,976

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